	U.S. ENVIRONMENTAL PROTECTION AGENCY Assistance Amendment		ASSISTANCE ID NO.			DATE OF AWARD 09/29/2011
			PRG	DOC ID	AMEND#	
			BG - 96072101 - 6			MAILING DATE 10/06/2011
			TYPE OF ACTION Revision: Scope & Increase			
RECIPIENT TYPE: Indian Tribe		Send Payment Request to: Las Vegas Finance Center FAX # 702-798-2423				ACH# X0068
RECIPIENT: Confederated Tribes and Bands of the Yakama Nation P.O. Box 151 Toppenish, WA 98948-0151 EIN: 91-0576806		PAYEE: Confederated Tribes and Bands of the Yakama Nation P.O. Box 151 Toppenish, WA 98948-0151				
PROJECT MANAGER Elizabeth Sanchez P.O. Box 151 Toppenish, WA 98948-0151 E-Mail: esanchez@yakama.com Phone: 509 865-5121 ext 6038		EPA PROJECT OFFICER Alan Moomaw 300 Desmond Dr., SE, WOO Lacy, WA 98503 E-Mail: Moomaw.Alan@epamail.epa.gov Phone: 360-753-8071		EPA GRANT SPECIALIST Paul Steele 1200 Sixth Avenue, Suite 900, OMP-145 Seattle, WA 98101 E-Mail: Steele.Paul@epa.gov Phone: 206-553-0311		
PROJECT TITLE AND EXPLANATION OF CHANGES Performance Partnership Grant The Yakama Indian Nation will develop a wetlands program plan and provide for staff training, initiate a climate change adaptation and toxin reduction preparedness calibration study, and prepare a tribally-developed exhibit for climate change adaptation strategies in the Columbia River Basin. This Amendment adds \$97,012 in new EPA funding.						
BUDGET PERIOD 10/01/2008 - 09/30/2012		PROJECT PERIOD 10/01/2008 - 09/30/2012		TOTAL BUDGET PERIOD COST \$1,356,057.00		TOTAL PROJECT PERIOD COST \$1,356,057.00
NOTICE OF AWARD Based on your application dated 07/11/2011, including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA), hereby awards \$97,012. EPA agrees to cost-share 83.99% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$1,139,012. Such award may be terminated by EPA without further cause if the recipient fails to provide timely affirmation of the award by signing under the Affirmation of Award section and returning all pages of this agreement to the Grants Management Office listed below within 21 days after receipt, or any extension of time, as may be granted by EPA. This agreement is subject to applicable EPA statutory provisions. The applicable regulatory provisions are 40 CFR Chapter 1, Subchapter B, and all terms and conditions of this agreement and any attachments.						
ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)				AWARD APPROVAL OFFICE		
ORGANIZATION / ADDRESS EPA Region 10 Mail Code: OMP-145 1200 Sixth Avenue, Suite 900 Seattle, WA 98101				ORGANIZATION / ADDRESS U.S. EPA, Region 10 Office of Ecosystems Tribal & Public Affairs 1200 Sixth Avenue, Suite 900 Seattle, WA 98101		
THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY						
SIGNATURE OF AWARD OFFICIAL Digital signature applied by EPA Award Official		TYPED NAME AND TITLE Armina K. Nolan, Manager - Grants and Interagency Agreements Unit			DATE 09/29/2011	
AFFIRMATION OF AWARD BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION						
SIGNATURE		TYPED NAME AND TITLE Harry Smiskin, Chairman			DATE	

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$ 1,040,000	\$ 97,012	\$ 1,137,012
EPA In-Kind Amount	\$ 2,000	\$	\$ 2,000
Unexpended Prior Year Balance	\$ 0	\$	\$ 0
Other Federal Funds	\$ 0	\$	\$ 0
Recipient Contribution	\$ 57,045	\$	\$ 57,045
State Contribution	\$ 0	\$	\$ 0
Local Contribution	\$ 0	\$	\$ 0
Other Contribution	\$ 0	\$	\$ 0
Allowable Project Cost	\$ 1,099,045	\$ 97,012	\$ 1,196,057

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.605 - Performance Partnership Grants	Appropriations Act of 1996 (PL 104-134) Appropriations Act of 1998 (PL 105-65)	40 CFR PTS 31 & 35 SUBPT B

Fiscal									
Site Name	Req No	FY	Approp. Code	Budget Organization	PRC	Object Class	Site/Project	Cost Organization	Obligation / Deobligation
-	1110U4G056	11	E1	10UT	503L15E	4108	-	-	75,000
-	1110UWG018	11	E1	10UT	403B07E	4108	-	-	22,012
									97,012

Budget Summary Page

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	\$719,909
2. Fringe Benefits	\$184,419
3. Travel	\$38,960
4. Equipment	\$6,000
5. Supplies	\$54,646
6. Contractual	\$80,720
7. Construction	\$16,900
8. Other	\$81,435
9. Total Direct Charges	\$1,182,989
10. Indirect Costs: % Base	\$173,068
11. Total (Share: Recipient <u>16.01</u> % Federal <u>83.99</u> %.)	\$1,356,057
12. Total Approved Assistance Amount	\$1,139,012
13. Program Income	\$0
14. Total EPA Amount Awarded This Action	\$97,012
15. Total EPA Amount Awarded To Date	\$1,139,012

Administrative Conditions

All Administrative Conditions Remain the Same

Programmatic Conditions

All Programmatic Conditions Remain the Same

END OF ASSISTANCE AMENDMENT #BG-96072101-6

Budget Mod

Columbia River Basin Lane use, Lakes, and Streams (ILLS)
Award No. BG-96072101
Budget Period: October 1, 2011 - September 30, 2012
Fund #2760.8101

Budget	Hours	Rate	BUDGET AMOUNT	MOD	REVISED BUDGET
Senior Research Scientist	72.68	48.31	3,865	(354)	3,511
YKFP-Program Coordinator	87	21.35	1,857		1,857
Bookkeeper IV	238	17.03	4,053		4,053
512111 Total Salaries & Wages			9,775	(354)	9,421
519111 Fringe 26.02%			2,544	(92)	2,452
TOTAL PERSONNEL EXPENSE			12,319	(446)	11,873
II. MATERIALS, SUPPLIES & SERVICES					
581141 Travel, Training, Per Diem			462		462
See attached worksheet			462.00		
Total Supplies & Services			462		462
III. INDIRECT COST					
621251 I/C at 22.95% of Base	12,335		2,385	446	2,831
IV. SUB-CONTRACTS					
521121 Sub-Contract/Consultant					
Dr. Geoff Schladow - Project oversight & consultant	41	73.17	3,000	0	3,000
Artistic & technical consultant to develop museum exhibit concepts for the pilot exhibit	150	62.5	9,375	0	9,375
Environmental Coordinator	420	30.00	12,600		12,600
Environmental Coordinator	200	25.00	5,000		5,000
Environmental Coordinator	200	25.00	5,000		5,000
Exhibit Materials	1250	4	5,000		5,000
Submersible Temp DO Logger	4000	2	8,000		8,000
Weather Station	4500	1	4,500		4,500
Field Supplies	1581	1	1,581		1,581
Ancillary equipment, mooring lines, data cables, transit case, external battery case, batteries					-
Travel, Training, Per Diem			5,778		5,778
See attached worksheet					
Total Sub Contracts			59,834	-	59,834
TOTAL BUDGET			75,000	-	75,000

Justification: To modify increase of indirect cost

Fund Mod
to reflect current I/C



Yakama PPG Amendment, BG-96072101 (wetlands and GAP)

Alan Moomaw to: Wendy Wasson, Paul Steele

09/14/2011 11:32 AM

Cc: Michael Szerlog, Linda Storm, Sally Thomas, Diana Boquist,
Catherine Vila, Tony Fournier

From: Alan Moomaw/R10/USEPA/US
To: Wendy Wasson/R10/USEPA/US@EPA, Paul Steele/R10/USEPA/US@EPA
Cc: Michael Szerlog <szerlog.michael@epa.gov>, Linda Storm/R10/USEPA/US@EPA, Sally Thomas/R10/USEPA/US@EPA, Diana Boquist/R10/USEPA/US@EPA, Catherine Vila/R10/USEPA/US@EPA, Tony Fournier/R10/USEPA/US@EPA

Greetings,

The PPG amendment is for adding wetlands (\$22,012) and GAP funds (\$75,000) for a total supplemental amendment action of \$97,012. The email transmittal from James Thomas and the attachments at the bottom are for the GAP add. Yakama had previously submitted materials for the wetlands addition (which was held up pending the GAP addition), but not a signed SF-424 (as noted in James email, they're attempting to walk it through for signature today & will fax it over, once signed...but may not make it by today). However, they did submit an initial signed SF-424 as part of the competitive process for a wetlands grant (ARU chose to fund a portion of the tribal request, which triggered a revised workplan and budget). Can Grants work with the original signed SF-424, in event they aren't able to get the signature for a revised SF-424 for the wetlands part in time? -- as i know the clock is ticking towards the end of the fiscal year to get this amendment completed.



SF424wetland2012.pdf

Here is the revised wetlands workplan, revised SF-424A budget forms and revised Tribal Budget sheet:



YakamaPPGwetlandsamendedworkplan2.doc



Budget_wetland_revisedamount.xlsm



424A2nd p-9-12-11.pdf



424Awetl2012.pdf

~~~~~  
Alan Moomaw  
EPA Region 10, Tribal Trust & Assistance Unit  
Washington Operations Office  
300 Desmond Drive SE, Suite 102  
Lacey, WA 98503  
PH: 360.753.8071 FAX: 360.753.8080  
moomaw.alan@epa.gov  
~~~~~

"GO COUGS!"







— Forwarded by Alan Moomaw/R10/USEPA/US on 09/14/2011 11:09 AM —

From: James Thomas <jthomas@yakama.com>
To: Alan Moomaw/R10/USEPA/US@EPA


Date: 09/14/2011 10:24 AM
Subject: Re: WPDG

On the original workplan I added in to the ILLS Calibration study the idea of purchasing temperature and oxygen sensors and moved \$10,000 into that line item for purchase of these items. Also, on page 15 I included the preparation of a one page (Success Story) as directed by the previous email.

Sharon is walking through the documents for the WPDG change in available funds and the IGAP to add to the PPG. I'll fax the (hopefully) signed signature pages to you asap. However, because I was assigned this task on Monday, I can't guarantee Chairman's signature by COB today, but we'll do what we can to make it happen. An extension for time to obtain chairman's signatures would be much appreciated, but I realize it may be out of your hands.

			
2012 IGAP Special Projects Proposal_Yakama Nation_Dec 20, 2010.docx			YNWorkPlan1.pdf
			
ppgcvrletrIGAP 9-13-11.docm	sf424-IGAP.pdf	424A pg 1 2011-15 IGAP.pdf	424Apg2, IGAP.pdf



Re: BG96072101-8, Yakama 
Paul Steele to: Alan Moomaw

05/23/2012 08:43 AM

From: Paul Steele/R10/USEPA/US
To: Alan Moomaw/R10/USEPA/US@EPA

thanks, alan,

i appreciate your prompt reply.

Paul Steele
Grant Compliance and Enforcement
U. S. EPA Region 10
(206) 553-0311 phone
(206) 553-4957 FAX

Alan Moomaw yes, please reduce the application amount by \$19 to \$293,981...the SF424A bu...

05/23/2012 08:35:27 AM

From: Alan Moomaw/R10/USEPA/US
To: Paul Steele/R10/USEPA/US@EPA
Date: 05/23/2012 08:35 AM
Subject: Re: BG96072101-8, Yakama

yes, please reduce the application amount by \$19 to \$293,981...the SF424A budget and the budget details in the workplans both add to the \$293,981 total.

yes, the Yakama Environmental Management Program has been moved & i've been told by staff that they are now renting their office space. I do not know who the building owner is, but i've been to the site & it is off the Yakama Nation campus. It appears to be a commercial property in Toppenish, as there are business entities located on each side of their office space.

~~~~~  
Alan Moomaw  
EPA Region 10, Tribal Trust & Assistance Unit  
Washington Operations Office  
300 Desmond Drive SE, Suite 102  
Lacey, WA 98503



PH: 360.753.8071 FAX: 360.753.8080  
moomaw.alan@epa.gov  
~~~~~

"GO COUGS!"

Paul Steele

Hello, Alan, We have received the application for this amendment. There's a s...

05/22/2012 01:34:52 PM



correction of errata and clarification of duties

James Thomas to: Paul Steele

Cc: Alan Moomaw, Esanchev

09/23/2011 02:38 PM

From: James Thomas <jthomas@yakama.com>
To: Paul Steele/R10/USEPA/US@EPA
Cc: Alan Moomaw/R10/USEPA/US@EPA, <Esanchev@yakama.com>

3 attachments



424Apg2, IGAP.pdf



2012 IGAP Special Projects Proposal_Yakama Nation_Dec 20, 2010.docx



Tasks to be Undertaken by S.docx

Attached is a corrected 424A 2nd Page for the IGAP proposal. The direct and indirect amounts were in error .

Also attached is a revised narrative workplan with the changes and specifications in regard to clarifying the consultant and Yakama Nation tasks on pages 12 and 13. I have also attached this segment as: "Tasks to be undertaken". This should further help clarify the response to the question concerning the tasks assigned to the consultant and tasks performed by the Yakama Nation. In essence it will be a collaborative effort among the ILLS Study Geoff Schladow and the Yakama Nation for completing the: "Component One: ILLS Calibration project."

--

./jmt



Re: Fw: Yakama—p.s.
James Thomas to: Paul Steele
Cc: Alan Moomaw, Esanchey

09/23/2011 10:47 AM

From: James Thomas <jthomas@yakama.com>
To: Paul Steele/R10/USEPA/US@EPA
Cc: Alan Moomaw/R10/USEPA/US@EPA, <Esanchey@yakama.com>

6 attachments



2012 IGAP Special Projects Proposal_Yakama Nation_Dec 20, 2010.docx



424A pg 1 9-22-11 IGAP.pdf



igap budget2012, 9-22 ,-11,3rddraft.xlsm



IGAP Budget Detail Worksheet_YN_9-22-11v3.pdf



YNWorkPlan92111.pdf



424Apg2, IGAP.pdf

Responses to suggested changes:

- 1) Percentage FTE corrected in IGAP template to reflect actual planned work effort. Also detailed in the IGAP template detailed budget.on page 1
- 2) "Travel and Training" is described on page 2 of the detailed budget.
- 3) Supplies described on page 4 of detailed budget
- 4) Equipment we started receiving quotes for the monitoring items. Individual items are not clearly \$5,000 or greater but when combined into a unit they would be greater than \$5,000 so are listed as supplies. Also on page 4 of the narrative I changed the language to reflect the supply equipment items as requirements and removed the "reserved" language.
- 5) "Contractual" is lumped with consulting for accounting purposes (Schladow for component one and a to be determined entity for Component Two, the museum project. This situation is described on page 5 of the detailed budget.
- 6) "Other" was listed as 0.00, because we simply do not know what if any "other" expenses will be incurred at this point. If "Other" purchases are needed as the project develops they will be handled with a budget modification later in the project.
- 7) "Indirect" in the amount of: \$9,848.00 is based upon 18.66% of direct costs less the consulting /contractual line item.
- 8) Consulting fees are lumped with contractual for budget purposes for reimbursing Geoff Schladow for Component 1 and Artistic /Technical Consultants for Component 2. Please refer to page 5 of the detailed

budget.

Feel free to contact me at (509) 865-5121, Ext.# 6076 if you have any further questions

On 9/21/2011 6:42 AM, Steele.Paul@epamail.epa.gov wrote:

> Morning,

>

> Thanks for the prompt response.

>

> Sorry, but we need quite a bit more detail and explanation for the GAP portion:

>

> ---For salary, the total is \$26,587.00. Elsewhere, the work plan shows .26 FTE for this component. That works out to an average annual salary of just over \$102,000. Please confirm---that seems a little high.

>

> ---Travel/Training: Need detail, please. Where are the travelers going, how many are going, what is the airfare each, etc? We can provide you with a self-calculating worksheet for providing this information.

>

> ---Supplies: please tell us what is included in the \$13,300.00 for supplies.

>

> ---Equipment: Sorry, but we're not allowed to provide funding for contingencies or reserves. If you need the Thermistor Chain and Oxygen Sensor, then please tell us the unit price each. Alan, we may need your help with this. We can buy equipment, but we can't set aside reserves. Also, at exactly \$10,000, the budget for two pieces of equipment must mean they cost \$5,000 each. Anything less, and they're supply items.

>

> ---Contractual: For what are you contracting?

>

> ---Other: Need detail, not examples. The template suggestions are for examples of what would be considered "other". We need for you to tell us the details of what items are included, and the total for each.

>

> ---Indirect: Cannot follow your calculation. At 18.66% (which is expired), indirect costs of \$5,052.33 require a base of \$27,075.19. Also, there is reference to consulting fees. What consulting fees are there?

>

> Thanks.

>

>

> Paul Steele

> Grant Compliance and Enforcement

> U. S. EPA Region 10

> (206) 553-0311 phone

> (206) 553-4957 FAX

>

>

>

>

>

>

> From: Alan Moomaw/R10/USEPA/US

> To: Paul Steele/R10/USEPA/US@EPA

> Date: 09/20/2011 05:05 PM

> Subject: Fw: Yakama---p.s.

>

>

> ~~~~~

> Alan Moomaw

> EPA Region 10, Tribal Trust& Assistance Unit

> Washington Operations Office

> 300 Desmond Drive SE, Suite 102

> Lacey, WA 98503

> PH: 360.753.8071 FAX: 360.753.8080

> moomaw.alan@epa.gov

> ~~~~~

> "GO COUGS!"

> ----- Forwarded by Alan Moomaw/R10/USEPA/US on 09/20/2011 05:05 PM -----

>

> From: James Thomas<jthomas@yakama.com>

> To: Alan Moomaw/R10/USEPA/US@EPA

> Date: 09/20/2011 05:01 PM

> Subject: Re: Fw: Yakama---p.s.

>

>

>

> I missed deleting the reference to Section VI because of time

> constraints. I've attached the EXCEL budget sheet from whence I

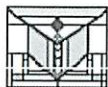
> developed the 424A-0 pages 1 and 2.


>

> On 9/20/2011 3:43 PM, Moomaw.Alan@epamail.epa.gov wrote:

> please send over a budget page/explanation for the \$75k GAP

> project, see Paul Steele's email below. thanks
>
> ~~~~~
> Alan Moomaw
> EPA Region 10, Tribal Trust& Assistance Unit
> Washington Operations Office
> 300 Desmond Drive SE, Suite 102
> Lacey, WA 98503
> PH: 360.753.8071 FAX: 360.753.8080
> moomaw.alan@epa.gov
> ~~~~~
> "GO COUGS!"
> ----- Forwarded by Alan Moomaw/R10/USEPA/US on 09/20/2011 03:38 PM
> -----
>
> From: Paul Steele/R10/USEPA/US
> To: Alan Moomaw/R10/USEPA/US@EPA
> Date: 09/20/2011 01:57 PM
> Subject: Yakama---p.s.
>
>
> Need the budget for the \$75,000 portion. The GAP 16-page proposal
> shows that the budget is in Section VI., but I don't find it. All
> 16 pages are there, but no Section VI.
>
> Thanks.
>
> Paul Steele
> Grant Compliance and Enforcement
> U. S. EPA Region 10
> (206) 553-0311 phone
> (206) 553-4957 FAX
>
>
> --
> ./jmt[attachment "igap budget2012, 9-13 , -11,2nddraft.xls" deleted by
> Paul Steele/R10/USEPA/US] [attachment "424A pg 1 2011-15 IGAP.pdf"
> deleted by Paul Steele/R10/USEPA/US] [attachment "424Apg2, IGAP.pdf"
> deleted by Paul Steele/R10/USEPA/US]
>
>
>
--



Re: Fw: Yakama---p.s. 
Paul Steele to: Alan Moomaw
Cc: James Thomas

09/21/2011 06:42 AM

From: Paul Steele/R10/USEPA/US
To: Alan Moomaw/R10/USEPA/US@EPA
Cc: James Thomas <jthomas@yakama.com>

History: This message has been replied to and forwarded.

9/23/11

Morning,

Thanks for the prompt response.

Sorry, but we need quite a bit more detail and explanation for the GAP portion :

---For salary, the total is \$26,587.00. Elsewhere, the work plan shows .26 FTE for this component. That works out to an average annual salary of just over \$102,000. Please confirm---that seems a little high.

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James sending revised budget sheets
(SF-424A, Budget explanation
work for FTE change)

---Indirect: Cannot follow your calculation. At 18.66% (which is expired), indirect costs of \$5,052.33 require a base of \$27,075.19. Also, there is reference to consulting fees. What consulting fees are there?

Thanks.

Paul Steele
Grant Compliance and Enforcement
U. S. EPA Region 10
(206) 553-0311 phone
(206) 553-4957 FAX

Alan Moomaw

~~~~~ Alan Moomaw

09/20/2011 05:05:28 PM

From: Alan Moomaw/R10/USEPA/US  
To: Paul Steele/R10/USEPA/US@EPA  
Date: 09/20/2011 05:05 PM  
Subject: Fw: Yakama---p.s.

---

~~~~~  
Alan Moomaw
EPA Region 10, Tribal Trust & Assistance Unit
Washington Operations Office
300 Desmond Drive SE, Suite 102
Lacey, WA 98503
PH: 360.753.8071 FAX: 360.753.8080
moomaw.alan@epa.gov
~~~~~

"GO COUGS!"

--- Forwarded by Alan Moomaw/R10/USEPA/US on 09/20/2011 05:05 PM ---

From: James Thomas <jthomas@yakama.com>  
To: Alan Moomaw/R10/USEPA/US@EPA  
Date: 09/20/2011 05:01 PM  
Subject: Re: Fw: Yakama---p.s.

---



I missed deleting the reference to Section VI because of time constraints. I've attached the EXCEL budget sheet from whence I developed the 424A-0 pages 1 and 2.

On 9/20/2011 3:43 PM, [Moomaw.Alan@epamail.epa.gov](mailto:Moomaw.Alan@epamail.epa.gov) wrote:

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~~~~~

Alan Moomaw
EPA Region 10, Tribal Trust & Assistance Unit
Washington Operations Office
300 Desmond Drive SE, Suite 102
Lacey, WA 98503
PH: 360.753.8071 FAX: 360.753.8080
moomaw.alan@epa.gov
~~~~~

"GO COUGS!"

----- Forwarded by Alan Moomaw/R10/USEPA/US on 09/20/2011 03:38 PM -----

From: Paul Steele/R10/USEPA/US  
To: Alan Moomaw/R10/USEPA/US@EPA  
Date: 09/20/2011 01:57 PM  
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Thanks.

Paul Steele  
Grant Compliance and Enforcement  
U. S. EPA Region 10  
(206) 553-0311 phone  
(206) 553-4957 FAX

**BUDGET INFORMATION - Non-Construction Programs**

| SECTION A - BUDGET SUMMARY             |                                                   |                             |                 |                       |                 |              |
|----------------------------------------|---------------------------------------------------|-----------------------------|-----------------|-----------------------|-----------------|--------------|
| Grant Program Function or Activity (a) | Catalog of Federal Domestic Assistance Number (b) | Estimated Unobligated Funds |                 | New or Revised Budget |                 |              |
|                                        |                                                   | Federal (c)                 | Non-Federal (d) | Federal (e)           | Non-Federal (f) | Total (g)    |
| 1. IGAP (PPG)                          | 66.605                                            | \$ 75,000.00                | \$              | \$                    | \$              | \$ 75,000.00 |
| 2.                                     |                                                   |                             |                 |                       |                 |              |
| 3.                                     |                                                   |                             |                 |                       |                 |              |
| 4.                                     |                                                   |                             |                 |                       |                 |              |
| 5. Totals                              |                                                   | \$75,000.00                 | \$8,            | \$                    | \$              | \$ 75,000.00 |
| SECTION B - BUDGET CATEGORIES          |                                                   |                             |                 |                       |                 |              |
| 6. Object Class Categories             | GRANT PROGRAM, FUNCTION OR ACTIVITY               |                             |                 |                       | Total (5)       |              |
|                                        | (1)                                               | (2)                         | (3)             | (4)                   |                 |              |
| a. Personnel                           | \$ 26,587.00                                      |                             |                 |                       | \$26,587.00     |              |
| b. Fringe Benefits                     | \$ 6,913.00                                       | \$                          |                 |                       | \$6,913.00      |              |
| c. Travel                              | \$ 4,000.00                                       |                             |                 |                       | \$ 4,000.00     |              |
| d. Equipment                           | \$10,000.00                                       |                             |                 |                       | \$10,000.00     |              |
| e. Supplies                            | \$13,300.00                                       |                             |                 |                       | \$ 13,300.00    |              |
| f. Contractual                         | \$8,000.00                                        |                             |                 |                       | \$8,000.00      |              |
| g. Construction                        | \$0.00                                            |                             |                 |                       | \$0.00          |              |
| h. Other                               | \$1,148.00                                        |                             |                 |                       | \$1,148.00      |              |
| i. Total Direct Charges (sum of 6a-6h) | \$69,948.00                                       | \$                          |                 |                       | \$69,948.00     |              |
| j. Indirect Charges                    | \$5,052.00                                        |                             |                 |                       | \$5,052.00      |              |
| k. TOTALS (sum of 6i and 6j)           | \$75,000.00                                       | \$                          | \$              | \$                    | \$ 75,000.00    |              |
|                                        |                                                   |                             |                 |                       |                 |              |
| 7. Program Income                      | \$                                                | \$                          | \$              | \$                    | \$              |              |

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Standard Form 424A (Rev 4-2012)  
Prescribed by OMB Circular A-102

| <u>Line Item</u>                          | <u>Details</u>                                                                                                                                      | <u>Sub Total<br/>FY11</u> | <u>Total</u> |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------|
| <b>PERSONNEL</b>                          | Salary (estimated combined staff time for field and lab work) )                                                                                     | \$ 26,587.00              | \$ 26,587.00 |
|                                           | Fringe @ 26%                                                                                                                                        | \$ 6,912.62               | \$ 6,912.62  |
|                                           | <b><u>TOTAL Personnel</u></b>                                                                                                                       | \$ 33,499.62              | \$ 33,499.62 |
| <b>TRAVEL/<br/>TRAINING</b>               | TRAVEL AND TRAINING FEES : EXAMPLE ONLY five tribal staff 3 events at \$ 1,333.00 per staff), includes: vehicle rent, per diem, lodging @4,000 - yr | \$ 4,000.00               | \$ 4,000.00  |
| <b>SUPPLIES</b>                           | <u>supplies</u>                                                                                                                                     | \$ 13,300.00              | \$ 13,300.00 |
| <b>EQUIPMENT</b>                          |                                                                                                                                                     | \$ 10,000                 | \$ 10,000    |
| <b>CONTRACTUAL</b>                        |                                                                                                                                                     | \$ 8,000.00               | \$ 8,000.00  |
|                                           |                                                                                                                                                     |                           |              |
| <b>OTHER</b>                              | E.g vehicle, fuel, oil, maintenance office rent (unless covered under indirect)                                                                     | \$ 1,148.00               | \$ 1,148.00  |
|                                           |                                                                                                                                                     |                           |              |
|                                           |                                                                                                                                                     |                           |              |
| Total Other                               |                                                                                                                                                     |                           |              |
|                                           |                                                                                                                                                     |                           |              |
|                                           |                                                                                                                                                     |                           |              |
| <b><u>TOTAL DIRECT</u></b>                |                                                                                                                                                     | \$ 69,947.62              | \$ 69,947.62 |
| <b><u>INDIRECT</u></b>                    | total direct At 18.66% less contractual and consulting fees.                                                                                        | \$5,052.23                | \$5,052.23   |
| <b><u>TOTAL DIRECT +<br/>INDIRECT</u></b> | Direct + Indirect cost- contractual and consultant fees                                                                                             | \$ 74,999.85              | \$ 74,999.85 |
| <b><u>Tribal match</u></b>                | not applicable                                                                                                                                      |                           | \$ -         |
| Total Project Cost                        | direct plus indirect with no tribal match.                                                                                                          |                           |              |

Reviewed



**Yakama Nation—IGAP Project Budget  
75,000 Special Projects for Multi-Tribe Benefit**

**Proposed Budget: FY 2010-Draft**

Assumed Project Period October 1, 2011 to September 30, 2012

**Project One-- Climate Change Adaptation and Toxin Reduction Preparedness  
A Calibration Study**

| Item                                              |                     | Total Amount Allocated |
|---------------------------------------------------|---------------------|------------------------|
| Equipment: Thermistor Chain                       |                     | \$ 8,000               |
| Equipment: Oxygen Sensor                          |                     | \$ 5,000               |
| Weather Station                                   |                     | \$ 6,000               |
| Data Retrieval and Analysis                       |                     | \$ 3,000               |
| Final Report Preparation including Powerpoint     |                     | \$ 1,000               |
| Travel: 3 trips (Beg., Mid, End and presentation) |                     | \$ 3,000               |
| Oversight and consultation: Geoff Schladow        | 30 hours @ 100/hour | \$ 3,000               |
| <b>Project Subtotal</b>                           |                     | \$ 28,000              |

**Project Two-- Collaborative Multi-Tribe Development of Museum Exhibit**

| Item                                                                                           |                                                                           | Total Amount Allocated |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------|
| Artistic and Technical Consultation and development                                            | 10 hours @\$50/hour                                                       | \$ 5,000               |
| Pilot Project Material/Display (may include technical so budget reflects this potential cost). | Display Material non-tech =\$ 5,000<br>Material Production tech =\$18,300 | \$ 23,300              |
| Travel for at least 5 tribal participants 3 meetings                                           |                                                                           | \$ 4,000               |
| Operational Expenses                                                                           |                                                                           | \$ 1,200               |
| <b>Project Subtotal</b>                                                                        |                                                                           | \$ 33,500              |
| <b>Indirect Costs @ est. 18 %</b>                                                              |                                                                           | \$ 13,500              |
| <b>GRAND TOTAL</b>                                                                             |                                                                           | \$ 75,000              |

\$ 109,500      \$ 75,000

| Objectives                                | Tasks                                                     | Products/outputs                                                                                                                                                                 | Timeline / milestones                                             | Tracking Measures                                           | Outcomes/Core elements addressed                                                                                         | Staff                             |
|-------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 1) Research and development of Tribal WPP | Assemble and meet with team, compile all existing records | Establish Tribal goals for protection and restoration activities                                                                                                                 | On going in first 2 months. First meeting in 30 days from funding | Goals documented, Number of WPP's reviewed, Draft developed | Improved wetland protection efforts by providing tools for decision making and effective planning.                       | EMP lead, Water Resources Co-lead |
|                                           | Evaluate any existing data, review maps                   | List of wetland types, sizes, services and condition, determine break off points for ecological and size thresholds. (Is the site too small or services insignificant) Draft WPP | Simple landscape scheme of classification and draft in 90 days    | Water Resources                                             |                                                                                                                          |                                   |
|                                           |                                                           |                                                                                                                                                                                  | Actions to be implemented                                         |                                                             | Cultural Resources                                                                                                       |                                   |
|                                           | Draft completed<br><br>Final WPP                          | 120 days from funding<br><br>Final product in 150 days                                                                                                                           | → 4 months<br><br>→ 5 months                                      | Water Resources                                             |                                                                                                                          |                                   |
| 2) Staff training                         | Attend field trainings in innovative restoration methods  | Document lessons and methods                                                                                                                                                     | Ongoing as available                                              | Number of trainings attended                                | Increased understanding of wetland restoration principals and increased wetland acres through restoration and protection | All                               |


<http://www.epa.gov/tribalportal>

## Indian General Assistance Program Detailed Budget Worksheet

Print Form

Budget Year

FY2012

Name of Grant Recipient: Yakama Nation

Date Submitted/Revised: Sep 21, 2011

**PERSONNEL** - List all staff positions for the project by title. Give hourly salary rate, number of hours allotted to the project, and total cost for the project period. *The total for this category will be entered on Standard Form 424A, Section B, Line 6.a.*

| Position/Title   | Hourly Rate | No. of Hours | Work Years | Subtotal    |
|------------------|-------------|--------------|------------|-------------|
| Env. Coordinator | \$30.00     | 420          | .2         | \$12,600.00 |
| Env. Coordinator | \$25.00     | 200          | .1         | \$5,000.00  |
| Env. Coordinator | \$25.00     | 200          | .1         | \$5,000.00  |
|                  |             |              | 0          |             |
|                  |             |              | 0          |             |
|                  |             |              | 0          |             |

\* Total Work  
Years

.4

\* Total Work Years is a measurement of staff time spent on a project activity or activities, compared to one full-time work year of 2080 hours. Total work years are calculated by adding the annual hours for each staff position together then dividing this total by 2080 hours. Total work years should then be divided among work plan components (as Estimated Component Work Years) to add up to this amount.

**PERSONNEL TOTAL:** \$22,600

**FRINGE BENEFITS** - Identify the percentage used for your calculation and what benefits are included. *This amount will be entered on Standard Form 424A, Section B, Line 6.b.*

1. Please provide the benefits that are included in your fringe rate. For example, Retirement, Health Care, Annual and Sick Leave, Life Insurance, etc.

FICA, Employment Security, Workman's Compensation, Retirement, Life Insurance, Health Insurance, Long Term Disability, and Short Term Disability.

**FRINGE TOTAL:** \$5,881

2. Please provide fringe rate percentage in decimal format. For example, .25, .40, etc.

.2602

NOTE: To convert a percentage to a decimal, move the decimal point two spaces to the left. For example, 17.5% would convert to .175

3. If applicable, provide any additional lump sum benefits.

**TRAVEL** - Indicate the budgeted travel's purpose, the destination of each trip, the duration of the trip and the number of travelers. Specify the mileage, per diem, and other costs for each type of travel, such as lodging, common carrier transportation, etc. **Please explain/justify travel expenses for Tribal Council members. This amount will be entered on Standard Form 424A, Section B, Line 6.c.**

| <b>Trip A - Purpose, Location, Attendees, Component # and/or Travel Justification</b><br><br>Meeting for Yakama Nation museum and tribal staff at the Columbia Gorge Discovery Center and Museum to brainstorm possibilities for the exhibit display for workplan component 2. | Expense                                | Cost<br>(or rate/mile) | # of Days<br>(or # of miles) | # of Travelers | # of Trips | Amount     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------|------------------------------|----------------|------------|------------|
|                                                                                                                                                                                                                                                                                | Round Trip Airfare                     |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Lodging                                | \$70.00                | 3                            | 4              | 1          | \$840.00   |
|                                                                                                                                                                                                                                                                                | Per Diem (Meals & Incidental Expenses) | \$39.00                | 3                            | 4              | 1          | \$468.00   |
|                                                                                                                                                                                                                                                                                | Rental Car per Day                     | \$34.00                | 3                            |                | 1          | \$102.00   |
|                                                                                                                                                                                                                                                                                | Mileage Cost                           |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | <b>Subtotal for Trip A</b>             |                        |                              |                |            |            |
| <b>Trip B - Purpose, Location, Attendees, Component # and/or Travel Justification</b><br><br>Travel expenses for field collection of temperature and oxygen data at the selected field site in northern Washington state for workplan component 1.                             | Expense                                | Cost<br>(or rate/mile) | # of Days<br>(or # of miles) | # of Travelers | # of Trips | Amount     |
|                                                                                                                                                                                                                                                                                | Round Trip Airfare                     |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Lodging                                | \$70.00                | 15                           | 2              | 1          | \$2,100.00 |
|                                                                                                                                                                                                                                                                                | Per Diem (Meals & Incidental Expenses) | \$39.00                | 15                           | 2              | 1          | \$1,170.00 |
|                                                                                                                                                                                                                                                                                | Rental Car per Day                     | \$34.00                | 15                           |                | 1          | \$510.00   |
|                                                                                                                                                                                                                                                                                | Mileage Cost                           |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | <b>Subtotal for Trip B</b>             |                        |                              |                |            |            |
| <b>Trip C - Purpose, Location, Attendees, Component # and/or Travel Justification</b><br><br>                                                                                                                                                                                  | Expense                                | Cost<br>(or rate/mile) | # of Days<br>(or # of miles) | # of Travelers | # of Trips | Amount     |
|                                                                                                                                                                                                                                                                                | Round Trip Airfare                     |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Lodging                                |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Per Diem (Meals & Incidental Expenses) |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Rental Car per Day                     |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Mileage Cost                           |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | <b>Subtotal for Trip C</b>             |                        |                              |                |            |            |
| <b>Trip D - Purpose, Location, Attendees, Component # and/or Travel Justification</b><br><br>                                                                                                                                                                                  | Expense                                | Cost<br>(or rate/mile) | # of Days<br>(or # of miles) | # of Travelers | # of Trips | Amount     |
|                                                                                                                                                                                                                                                                                | Round Trip Airfare                     |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Lodging                                |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Per Diem (Meals & Incidental Expenses) |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Rental Car per Day                     |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | Mileage Cost                           |                        |                              |                |            |            |
|                                                                                                                                                                                                                                                                                | <b>Subtotal for Trip D</b>             |                        |                              |                |            |            |

**TRAVEL - CONTINUED:** Indicate the budgeted travel's purpose, the destination of each trip, the duration of the trip and the number of travelers. Specify the mileage, per diem, and other costs for each type of travel, such as lodging, common carrier transportation, etc. **Please explain/justify travel expenses for Tribal Council members. This amount will be entered on Standard Form 424A, Section B, Line 6.c.**

| <b>Trip E - Purpose, Location, Attendees, Component # and/or Travel Justification</b><br><br> | Expense                                | Cost<br>(or rate/mile) | # of Days<br>(or # of miles) | # of Travelers | # of Trips | Amount |
|-----------------------------------------------------------------------------------------------|----------------------------------------|------------------------|------------------------------|----------------|------------|--------|
|                                                                                               | Round Trip Airfare                     |                        |                              |                |            |        |
|                                                                                               | Lodging                                |                        |                              |                |            |        |
|                                                                                               | Per Diem (Meals & Incidental Expenses) |                        |                              |                |            |        |
|                                                                                               | Rental Car per Day                     |                        |                              |                |            |        |
|                                                                                               | Mileage Cost                           |                        |                              |                |            |        |
|                                                                                               | <b>Subtotal for Trip E</b>             |                        |                              |                |            |        |
| <b>Trip F - Purpose, Location, Attendees, Component # and/or Travel Justification</b><br><br> | Expense                                | Cost<br>(or rate/mile) | # of Days<br>(or # of miles) | # of Travelers | # of Trips | Amount |
|                                                                                               | Round Trip Airfare                     |                        |                              |                |            |        |
|                                                                                               | Lodging                                |                        |                              |                |            |        |
|                                                                                               | Per Diem (Meals & Incidental Expenses) |                        |                              |                |            |        |
|                                                                                               | Rental Car per Day                     |                        |                              |                |            |        |
|                                                                                               | Mileage Cost                           |                        |                              |                |            |        |
|                                                                                               | <b>Subtotal for Trip F</b>             |                        |                              |                |            |        |
| <b>Trip G - Purpose, Location, Attendees, Component # and/or Travel Justification</b><br><br> | Expense                                | Cost<br>(or rate/mile) | # of Days<br>(or # of miles) | # of Travelers | # of Trips | Amount |
|                                                                                               | Round Trip Airfare                     |                        |                              |                |            |        |
|                                                                                               | Lodging                                |                        |                              |                |            |        |
|                                                                                               | Per Diem (Meals & Incidental Expenses) |                        |                              |                |            |        |
|                                                                                               | Rental Car per Day                     |                        |                              |                |            |        |
|                                                                                               | Mileage Cost                           |                        |                              |                |            |        |
|                                                                                               | <b>Subtotal for Trip G</b>             |                        |                              |                |            |        |
| <b>Trip H - Purpose, Location, Attendees, Component # and/or Travel Justification</b><br><br> | Expense                                | Cost<br>(or rate/mile) | # of Days<br>(or # of miles) | # of Travelers | # of Trips | Amount |
|                                                                                               | Round Trip Airfare                     |                        |                              |                |            |        |
|                                                                                               | Lodging                                |                        |                              |                |            |        |
|                                                                                               | Per Diem (Meals & Incidental Expenses) |                        |                              |                |            |        |
|                                                                                               | Rental Car per Day                     |                        |                              |                |            |        |
|                                                                                               | Mileage Cost                           |                        |                              |                |            |        |
|                                                                                               | <b>Subtotal for Trip H</b>             |                        |                              |                |            |        |

**TRAVEL TOTAL: \$5,190**



**EQUIPMENT** - Identify each item to be purchased which has an estimated acquisition cost (including shipping) of \$5,000 or more per unit and a useful life of more than one year. Items with a unit cost of less than \$5,000 are deemed to be supplies, pursuant to 40 CFR 31.3. Please provide a detailed justification and identify the appropriate work plan component and/or commitment number, and explain how you arrived at your estimates. If applicable, indicate why it is more cost effective to purchase rather than lease. *This amount will be entered on Standard Form 424A, Section B, Line 6.d.*

| Item Description                                                                      | Component # | Cost Per Item | How Many? | Amount |
|---------------------------------------------------------------------------------------|-------------|---------------|-----------|--------|
|                                                                                       |             |               |           |        |
|                                                                                       |             |               |           |        |
|                                                                                       |             |               |           |        |
| Equipment Justification/Cost Estimates (e.g., vendor quotes, catalog searches, etc.): |             |               |           |        |

**EQUIPMENT TOTAL:** \_\_\_\_\_

**SUPPLIES** - "Supplies" means all tangible personal property, other than "equipment". The detailed budget should identify categories of supplies to be procured (e.g., laboratory supplies or office supplies), and their cost. If requesting items previously purchased, explain why they are being purchased again. Explain how you arrived at your estimates. *This amount will be entered on Standard Form 424A, Section B, Line 6.e.*

| Item Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Component # | Cost Per Item or Month | How Many Items or Months? | Amount     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------|---------------------------|------------|
| Exhibit Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2           | \$1,250.00             | 4                         | \$5,000.00 |
| Submersible Temp DO Logger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1           | \$4,000.00             | 2                         | \$8,000.00 |
| Weather Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1           | \$4,500.00             | 1                         | \$4,500.00 |
| Field Supplies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1           | \$1,606.00             | 1                         | \$1,606.00 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |                        |                           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |                        |                           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |                        |                           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |                        |                           |            |
| <p><b>Explanation of cost estimates and previous purchases (e.g., based on previous year's expenses, vendor quotes, catalog searches, etc.):</b></p> <p>Materials used to develop the exhibit - cost is based on experience in development of displays for technical projects and for the expected need to develop multiple iterations of the display to allow for improvement. Project requires autonomous submersible loggers to record temperature and dissolved oxygen at depth - estimate from Vendor - RBR Ltd., RBR duo T DO; Portable weather station measures and records data - Vendor - Rainwise, Inc., item - PORTLOG. Field supplies include ancillary equipment including mooring lines, data cables, transit case, external battery case, batteries - Vendor RBR Ltd.</p> |             |                        |                           |            |

**SUPPLIES TOTAL:** \$19,106

**CONTRACTUAL** - Identify each proposed contract and specify its purpose and estimated cost. Provide information on how the estimates were arrived at. *This amount will be entered on Standard Form 424A, Section B, Line 6.f.*

**NOTE:** IGAP applicants should review 40 CFR 31.36 concerning procurement and the need to provide justification for sole source agreements and documentation concerning cost-price analysis for contracts and other agreements.

If your project requires the hiring of **consultants (individuals with specialized skills who are paid at an hourly or daily rate)**, the maximum allowable consultant rate cannot exceed the maximum daily rate for a Level IV of the Executive Schedule, adjusted annually. You may find the annual salary for Level IV of the Executive Schedule on the following Internet site: <http://www.opm.gov/oca>. Select "Salary and Wages", and select "Executive Schedule". The annual salary is divided by 2087 hours to determine the maximum hourly rate, which is then multiplied by 8 to determine the maximum daily rate.

| Contracts                   |                             |           |        |
|-----------------------------|-----------------------------|-----------|--------|
| Item Description            | Purpose/Basis for Estimates | Component | Amount |
|                             |                             |           |        |
|                             |                             |           |        |
| <b>Contractual Subtotal</b> |                             |           |        |

|                    |
|--------------------|
| <b>Consultants</b> |
|--------------------|

| <b>Consultant A - Purpose, Location, and Component and/or Commitment #</b><br><br>Dr. Geoff Schladow, Professor and Director of Tahoe Environmental Research Center, University of California at Davis.<br><br>Project oversight and consultation.<br><br>Component 1 | Expense                                | Cost (or rate/mile) | # of Hours, Days, or Miles | # of People | # of Trips | Amount            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------|----------------------------|-------------|------------|-------------------|
|                                                                                                                                                                                                                                                                       | Hourly or Daily Wage                   | \$100.00            | 30                         | 1           | 1          | \$3,000.00        |
|                                                                                                                                                                                                                                                                       | Travel (RT Airfare or Mileage Cost)    |                     |                            |             |            |                   |
|                                                                                                                                                                                                                                                                       | Lodging                                |                     |                            |             |            |                   |
|                                                                                                                                                                                                                                                                       | Per Diem (Meals & Incidental Expenses) |                     |                            |             |            |                   |
| <b>Subtotal for Consultant A</b>                                                                                                                                                                                                                                      |                                        |                     |                            |             |            | <b>\$3,000.00</b> |

| <b>Consultant B - Purpose, Location, and Component and/or Commitment #</b><br><br>Artistic (\$50/hour) and technical consultant (\$75/hr) to develop - museum exhibit concepts for the pilot exhibit<br><br>Component 2 | Expense                                | Cost (or rate/mile) | # of Hours, Days, or Miles | # of People | # of Trips | Amount            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------|----------------------------|-------------|------------|-------------------|
|                                                                                                                                                                                                                         | Hourly or Daily Wage                   | \$62.50             | 150                        | 1           | 1          | \$9,375.00        |
|                                                                                                                                                                                                                         | Travel (RT Airfare or Mileage Cost)    |                     |                            |             |            |                   |
|                                                                                                                                                                                                                         | Lodging                                |                     |                            |             |            |                   |
|                                                                                                                                                                                                                         | Per Diem (Meals & Incidental Expenses) |                     |                            |             |            |                   |
| <b>Subtotal for Consultant B</b>                                                                                                                                                                                        |                                        |                     |                            |             |            | <b>\$9,375.00</b> |

|                           |                 |
|---------------------------|-----------------|
| <b>CONTRACTUAL TOTAL:</b> | <b>\$12,375</b> |
|---------------------------|-----------------|

**OTHER** - Include items here which do not fit in the other specific budget categories. Give a brief description of the expense and how you arrived at the estimate. \*Grantees who own their building are not entitled to reimbursement for rent; however, they may directly charge for utilities and maintenance costs using a cost allocation plan. If an expense is being shared with other programs, please provide the cost share formula. *This amount will be entered on Standard Form 424A, Section B, Line 6.h.*

| Item Description                                       | How Did You Arrive at Cost? | Cost Per Item or Month | How Many Items or Months? | Amount |
|--------------------------------------------------------|-----------------------------|------------------------|---------------------------|--------|
| Building Lease/Rent *                                  |                             |                        |                           |        |
| Explanation of Cost Sharing Formula                    |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |
|                                                        |                             |                        |                           |        |
| Explanation of Cost Sharing Formula or Cost Allocation |                             |                        |                           |        |

**OTHER TOTAL:** \_\_\_\_\_

**INDIRECT COSTS** - If indirect charges are budgeted, indicate the approved rate and base. The base amount is usually total direct costs, less capital expenditures and passthrough funds. Passthrough funds are normally defined as major subcontracts, payments to participants, stipends to eligible recipients, and subgrants, all of which normally require minimal administrative effort. However, please refer to your negotiated agreement for specific guidance. If you are choosing to charge less than the approved rate, you may type in the applicable amount in the Indirect Total box. *This amount will be entered on Standard Form 424A, Section B, Line 6.j.*

**NOTE:** If you plan to propose indirect costs as part of your grant project budget, you **must** have on file with the Region 10 Grants Administration Unit: (a) A current approved Indirect Cost Rate Agreement; or (b) Documentation that a current indirect cost rate proposal has been submitted to the Department of Interior's National Business Center. This documentation must indicate the requested rate. You may use either the approved or proposed rate in your proposed budget. Please provide a copy with your application. If you can provide neither, the indirect costs in your proposal will be disallowed.

Approved or  
Proposed Indirect  
Cost Rate (Enter as  
a decimal):

.1866

Base Amount:

\$52,777.00

**INDIRECT TOTAL:**

**\$9,848**

**TOTAL BUDGET:**

**\$75,000**

1. RETURN TO PAGE 1 AND SAVE THE FORM BY CLICKING FILE, THEN "SAVE AS".
2. CLICK THE PRINT BUTTON AND PRINT TWO COPIES (1 FOR YOUR RECORDS AND 1 FOR THE PROJECT OFFICER)

# **YAKAMA NATION**

## **DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL MANAGEMENT PROGRAM**

**Proposal for Funding to United States Environmental Protection Agency (USEPA)**

**Indian General Assistance Program (IGAP)**

**Special Project with Direct Benefit to Multiple Tribes**

**Requested Amount: \$75,000 FY 2012**

### **Proposal Outline:**

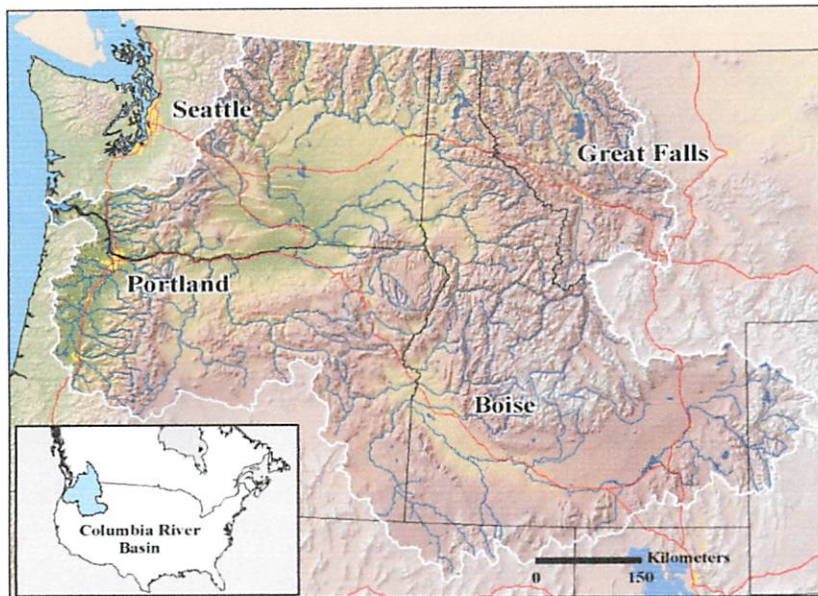
- I. Introduction**
- II. Project Summaries**
- III. Background**
- IV. Environmental and Human Health Issues Affecting the Tribes**
- V. Project Scopes of Work**
- VI. Proposed Budget**

### **I. INTRODUCTION**

#### **The Yakama Nation**

The 14 Confederated Tribes and Bands of the Yakama Nation are one of numerous tribal nations with indigenous homelands throughout the Columbia River Basin. The Yakama Nation has nearly 10,000 enrolled members. As such, it has the largest enrollment of any tribe in the Northwest. It also has the largest area of reservation lands of 1.4 million acres located within the state of Washington. Additionally, the Yakama Nation has negotiated reserved rights for use (hunting, fishing, gathering, and grazing), on ceded lands that total approximately 10 million acres (roughly a third of the state of Washington). Numerous court decisions have determined that the rights for usage of natural resources also entitle the tribe to the right for protection and preservation of the natural resources within those ceded lands.

## The Columbia River Basin



### Project Area Geographic Scope

The Columbia River Basin encompasses nearly 260,000 square miles. The river drains most of Washington and Idaho, half of Oregon, Montana west of the Continental Divide, small portions of Wyoming, Utah, and Nevada and 40,000 square miles of British Columbia. The 1,214 mile-long river begins at Columbia Lake, high in the Rocky Mountains of British Columbia, Canada. It initially flows northwest for 218 miles. After crossing the U.S.-Canada border into northeastern Washington, the Columbia River flows south, west, and south again across central Washington in a broad curve commonly referred to as the Big Bend. Just below the mouth of the Snake River, the Columbia runs west for its remaining 210 miles. It cuts through the heart of the Cascade Mountains, thus forming the Columbia River Gorge; flows into the Columbia River Estuary and finally empties into the Pacific Ocean at Astoria, Oregon. The Columbia River and its tributaries drain from high country watersheds through commercial forest lands, agriculture areas, dams and industrial cities.

## II. Project Summaries

The Yakama Nation is proposing to utilize IGAP funding to empower its people and other tribes in the Columbia River Basin by increasing public awareness and education and adding to the current state of technical knowledge so that viable strategies can be developed to reduce toxins and prepare for the need to develop climate change adaptation strategies. The Yakama Nation proposes the implementation of the following two projects that will benefit multiple tribes and non-tribal policy-making entities as well as all of life associated with the Columbia River and its eco-systems:



## **Project One**

### **Climate Change Adaptation and Toxin Reduction Preparedness Calibration Study**

This proposed project will contribute critical assessment data that will add important components to regional knowledge about climate change preparedness and help tribes understand how to develop adaptation strategies and toxin reduction strategies throughout the Columbia River Basin.

Specifically, by monitoring a reservoir (or possibly two), the Yakama Nation, via these IGAP special funds, would provide data essential to calibrating and validating the modeling efforts of the Integrated Land-use, Lakes, and Streams Study (ILLS Study) which is being considered for funding under a grant proposal by the four tribes of the Columbia River Inter-Tribal Fish Commission (CRITFC). The ILLS Study proposal will be described in *Section III, Background*.

The ILLS Study will be administered and implemented by CRITFC as described in their IGAP Special Project Proposal. The proposed calibration study of this proposal will provide important data to validate the ILLS Study, but will be conducted and administered completely separately from the ILLS Study. The roles of administration and implementation of the calibration study will be defined by joint contributions of two Yakama Nation Programs: Environmental Management Program (EMP) and the Yakama Klickitat Fisheries Program (YKFP). David Fast, Ph.D. (YKFP), will be the key staff overseeing the work of lead technical consultant, Geoff Schladow, of University of California at Davis. Administrative reporting, funding allocations, etc., will be provided by the EMP under the leadership of Program Manager, Elizabeth Sanchez; Program Coordinator, Sharon Hill; and staff, Rebecca Hawk. Technology for collecting Water Quality data (referred to within this document as a Thermistor Chain and Oxygen Sensors or in the detailed budget as a: "Submersible Temp DO Logger") and weather monitoring data items will be purchased for the calibration portion of the ILLS Study. Please refer to the detailed budget on page 4 for more detailed information.

## **Project Two**

### **Tribally-Developed Museum Exhibit**

This project affords an opportunity for the Yakama Nation to convene with other interested tribes throughout the region and provide a significant contribution of education aimed at increasing knowledge and generally building public awareness to help influence needed policies to reduce toxins and develop climate change adaptation strategies as a component of an inter-tribal effort to promote holistic healing of the air, land, and water, and thus, the fish, humans, plants, and animals in the Columbia River Basin.

The Yakama Nation has already sought collaboration with the Columbia Gorge Discovery Center and Museum as well as other stakeholders to develop the basis for a water ecology exhibit specifically produced by tribal educators that will meet the above-mentioned goals. (See attached letters of commitment from the Columbia Gorge Discovery Center and Museum and Columbia Riverkeeper).

The Yakama Nation Environmental Management Program will provide administration and oversight of implementation of this collaborative project by the same managerial and staff contributions as mentioned for Project One.

The Columbia River Gorge Discovery Center and Museum is committing space (known as the Stewardship Room) and staff time to research and develop interactive materials and technical resources. The Columbia Riverkeeper is committing staff time as needed for materials development and technical expertise to supplement the needs of the tribal and Discovery Center management and staff.

Moreover, the museum exhibit also builds self-determination by increasing the capacity for tribes to make positive, important contributions to the protection of water quality, fish, and human health for now and future generations.

### **III. BACKGROUND**

#### **Toxic Contamination and Water Quality Degradation-Reports and Action Plans**

The Columbia River Basin was identified as one of seven Critical Large Aquatic Ecosystems in EPA's 2006-2011 *Strategic Plan*. In January 2009, EPA released the, *Columbia River Basin: State of the River Report for Toxics* which was a comprehensive look at toxic contaminants in the basin. The report found continued threats to people, fish and wildlife exist from four widespread contaminants, as they move through the water, air, and soil.

The report identified four contaminants of primary concern because they were, "found through the Basin at levels that could adversely impact people, fish, and wildlife."<sup>i</sup> These four contaminants of concern were mercury, dichlorodiphenyltrichloroethane (DDT) and breakdown products, polychlorinated biphenyls (PCBs), and poly brominated diphenyl ether (PBDE) flame retardants. Many other contaminants are also found in the Basin, including arsenic, dioxins, radionuclides, lead, pesticides, industrial chemicals, and emerging contaminants such as pharmaceuticals found in wastewater.

#### **The Columbia River Toxics Reduction Action Plan**



Since 2005, the Yakama Nation has joined EPA Region 10 and numerous other federal, state, and local agencies, as well as non-profit partners to form the Columbia River Toxics Reduction Working Group (Working Group).<sup>ii</sup> Paramount to the goal of this group has been to develop *The Columbia River Toxics Reduction Action Plan*<sup>iii</sup> which was completed in September of 2010. The identified goal of this plan is to, “reduce human and ecosystem exposure to toxics in the Columbia River Basin.”<sup>iv</sup> To date, implementation of this goal has been greatly restricted by a lack of realistic and sustainable funds. Therefore, as the plan states:

*To a great extent, success in reducing toxics in the Basin will depend on a commitment by all levels of government, in both the United States, and Canada, tribal governments, nongovernmental organizations, industry groups and the public to work together. The problems are too large, widespread, and complex to be solved by only one organization or country.*<sup>v</sup>

#### **The ILLS Study—Initial Project Development Led by the Yakama Nation**

A particularly challenging aspect of environmental management is the multi-media interactions between sources of contaminants and the effects., e.g., mercury, designated as one of the four primary contaminants of concern in *The Columbia River Basin State of the River Report for Toxics*,<sup>vi</sup> is primarily sourced by air emissions (local, regional, and even global sources), but through atmospheric deposition and the process of methylation, mercury harms water quality, aquatic life, animals, and humans ingesting fish. In fact, the Columbia Basin is particularly vulnerable to the deleterious effects of mercury deposition because of the mercury emissions from two coal-burning power plants (PGE, Boardman and TransAlta in Longview, WA), the largest known source of mercury (Hg+2) in the country generated by the Ashgrove Cement Plant in Durkee, Oregon, and the fact that it is now known that over 30% of the mercury measured in the air in November of 2008 on the west coast of Washington State had been transported here via hemispheric air transport of pollutants from China’s massive coal burning industry.<sup>vii</sup>

When this problem was outlined to the leadership of the Yakama Nation, they directed Environmental Management Program staff to conduct a series of brainstorming meetings with stakeholders, and science advisors and partners at the University of Washington, and EPA. Additionally, the Yakama Nation consulted with U.C. Davis, Civil and Environmental Engineering Professor and Director of the Tahoe Environmental Research Center, Geoff Schladow to search for ways to reduce the toxins in the River system. Repeatedly the concerns of tribal leaders centered on the deleterious effects and the lack of control measures available to stop our exposure to mercury deposition.

Eventually, Dr. Schladow and Yakama Nation staff designed a collaborative project that involved nearly 20 different experts from tribes, universities, state and federal agencies, and nongovernmental agencies that would deal effectively with the problem of toxins in the basin. They focused on mercury for the development phase because of its priority to the Yakama Nation leaders. Mercury will provide the toxin of measurement, but all toxins will be reduced by the eventual implementation of new technologies and management practices as a result of this study.

#### **CRITFC**

The Columbia River Inter-Tribal Fish Commission (CRITFC) was formed in 1977 by the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Confederated Tribes and Bands of the Yakama Nation. CRITFC is a technical support and coordinating agency for its member tribes fisheries management. The fish and wildlife committees of these tribes govern CRITFC. CRITFC will be administering the pilot project of the ILLS Study, for which Project One will be a calibration study.

### **IV. Environmental and Human Health Issues Affecting the Tribes**

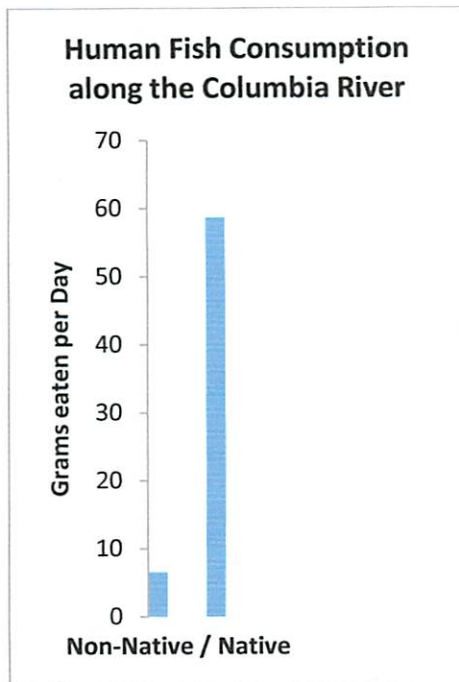
#### **Fish Contamination Survey-Fish Consumption**

##### **Fish tissue chemical concentrations**

CRITFC Tribes, in conjunction with EPA, led a contamination survey of fish in the mid Columbia River Region over 13 years ago.

Two hundred eight fish samples were collected at 24 sites in the basin from July 1996 through December 1997. The results of the fish contaminant survey showed that of the 131 chemicals analyzed 92 were detected in fish tissue.

The tribal fish consumption patterns defined the types of fish that were collected including whole body and fillet fish tissue from resident and anadromous species and a few egg samples from anadromous species. The anadromous species were: fall and spring chinook salmon, steelhead trout, smelt, and Pacific lamprey. The resident species were: rainbow trout, mountain whitefish, white sturgeon, walleye, largescale sucker, and bridgelip sucker.



A 1998 survey found that the Treaty Tribes of the Columbia River eat on average **58.7 grams per day (gpd)**. This compares to the U.S. national average fish consumption rate of **6.5 grams per day (gpd)** for adults over 18 years of age.

Thus, the Native consumption rate is **9 times higher than that of non-native fish-eaters.**

—Columbia River Tribes Fish Consumption Survey,

### Disproportionate Risk to Tribal People in the Columbia Basin

Based on EPA's risk assessment for adults and tribal communities with exposure rates according to the chemical concentrations found in the fish and the consumption rates for both adults and children of the CRITFC member tribes, both groups showed elevated risk disproportionate to the risk of eating fish for the non-native populations in the region.

### Analysis was Developed on both Non-Cancer and Cancer Effects

The non-cancer effects include impacts on the immune system, on development, and on the liver. These effects are due primarily to the concentrations of PCBs, DDE, and mercury in fish. "Adults and children in CRITFC's member tribes who consume fish at the highest consumption rates used in the survey... have the highest potential for non-cancer effects."<sup>viii</sup>

EPA's risk analysis stated the cancer risks thusly: "adults in CRITFC member tribes who eat fish for 70 years at the high ingestion rate... may have cancer risks that are up to 50 times higher than those for the general public who consume fish about once a month."<sup>ix</sup>

"These cancer risks are due primarily to exposures to PCBs, dioxins, and furans in all fish species. DDE was an additional contributor to cancer risk in resident species; arsenic in the anadromous species."<sup>x</sup>

It is essential at this point in history for natural resource reparations and preservation, that the voices of tribal governments are not only heard, but that we are given opportunities to

participate in creating our own viable solutions—especially as pertains to ensuring the health and well-being of fish, water quality, and humans.

The ILLS Study and the two linked projects of this proposal will enable the Yakama Nation to develop unique tribal-led quantifiable actions to provide critical data that everyone can use to better understand the problem and suggest viable solutions. Though Project One of this grant proposal is requesting funding for just the calibration study for phase one of a pilot project, it is part of the larger planned ILLS Study which would provide viable solutions that will actually result in reducing toxins in the waters of the Columbia River Basin. Thus, the water, the fish, and those who eat the fish will be less exposed to the dangers of toxins.

### **Climate Change as a Stress on Aquatic Systems**

The following is adapted from *Evaluating Climate Change Impacts on Tribal Resources...* by Columbia River Inter-Tribal Fish Commission (April 24, 2010).

*There is considerable scientific evidence to conclude that global surface air temperatures have warmed during the 20<sup>th</sup> century as a consequence of human activity and that the trend is likely to continue at an increasing rate during the 21<sup>st</sup> century.<sup>xi</sup> Climate change anticipates a significantly altered ecology and economy in the Pacific Northwest during the 21<sup>st</sup> century...*

*Water quality, including increased sediment delivery from winter storms and higher summer water temperatures is also anticipated to be impacted... Considerable effort has been made in the Columbia Basin to develop strategies to protect and restore populations of salmon, Pacific lamprey and other cold water fish, but most of these efforts have generally not addressed climate change.*

*Analyses of future conditions must anticipate deviation from present conditions to determine whether and which restoration strategies are effective at restoring or maintaining system resilience. Climate change is anticipated to affect ecological function as well as inter-species relationships. Therefore, response to changes in ecological function and process may necessitate coordinated, ecosystem-scale strategies to achieve not only species recovery, which is the current focus, but to ensure continued ecological function of restored systems. Ecosystem-scale analyses and restoration will rely on multi-disciplinary approaches for understanding and modeling the relationship among abiotic and biotic factors...*

### **Connecting Climate Change and Toxins: Tribal Capacity-Building and Filling a Data Void**

Although there have been efforts to monitor and characterize water temperature and water quality on parts of the Columbia River sub-basins, to date, there has not been an attempt to fully understand, on a regional scale, the interactions between contaminant loads and

internal transformations within lakes and reservoirs and the transport of those contaminants throughout the system by its rivers and streams and through bioaccumulation.

Building an understanding through inter-related assessments of the complex interactions between water temperature and toxins will lead to knowledge that will influence climate change adaptation strategies and toxin reduction strategies. This provides an opportunity for Tribal Nations in the Region to contribute significantly to the state of science concerning this problem. It is, therefore, an act of self-sufficiency and capacity-building to assume this leadership role to provide this data.

### **Affected Tribes**

**Treaty Negotiation:** There are 15 Tribes with Treaty Rights engaged in the *Columbia River Treaty Review* which is a precursor to the re-negotiation of the U.S./Canada Columbia River Treaty. There is a 10 year advanced notice as to the provisions that tribes want included. Toxins reduction and understanding climate change impacts are both provisions under consideration. The calibration study in this proposal will provide important information relevant to the negotiations. Developing the museum exhibit will provide another opportunity for tribes to collaborate, increase their understanding of the issues and how tribal people and resources are affected by climate change and toxins in the Columbia River Basin.

The fifteen tribes in the Columbia River Basin are as follows: Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation, Nez Perce Tribe, Burns Paiute Tribe, Coeur d'Alene Tribe, Confederated Salish and Kootenai Tribes of the Flathead Reservation, Confederated Tribes of the Colville Reservation, Cowlitz Tribe of Indians, Kalispel Tribe of Idaho, Paiute-Shoshone Tribes, Shoshone-Bannock Tribes, Shoshone Paiute Tribe, and the Spokane Tribe of Indians.

## **V. Project Scopes of Work**

### **Project One**

#### **Climate Change Adaptation and Toxin Reduction Preparedness**

##### **A Calibration Study**

##### **for the Columbia River Basin Integrated Land-use, Lakes, and Streams (ILLS) Study**

###### **Project Outline**

###### **Scope of Work and Budget**

Submitted as proposal for funding to Indian General Assistance Program (IGAP)  
FY 2012

###### **Project Lead Technical Advisor and Consultant:**

**S. Geoffrey Schladow, Ph.D. Department of Civil and Environmental Engineering,  
University of California, Davis**

###### **Project Justification**

Any model (e.g., the one being developed as part of the ILLS Study) needs to be calibrated. There need to be adjustments for local conditions and validations that compare the model to measured data to confirm and demonstrate the model is providing accurate representation of reality. This is important if you want to use the model for future predictions, e.g. climate change.

This process of calibration and validation is particularly important to this study because of the enormous size of the Columbia River Basin. There are existing data for some parts, e.g. Snake River but little on the Yakama River. It will not be possible to take all the measurements we need so regional measurements such as those described herein may need to be used to represent large sections of the Columbia River Basin. Future developments within the progression of the ILLS Study would require that we do additional calibration studies in other sections and reservoirs of the basin. At this time, however, we are restricted to the funding at hand, so this project funding will provide significant and needed data.

###### **Understanding the Framework of the ILLS Study**

The ILLS Study seeks to build a conceptual framework and integrated computer model to represent the transformations in water quality that occur within the lakes and reservoirs that comprise the Columbia River Basin. The project is predicated on the fact that (1) many of the lakes and reservoirs in the basin display seasonal anoxia, that (2) anoxic conditions are the key factor in the release of toxics and other pollutants from the sediments to the water column, and that (3) the uptake and transfer of these toxics and pollutants up the food web negatively impacts fish and ultimately human health.

### **Significant Impact Potential**

As the Columbia River Basin is an integrated system, in which the releases from one reservoir flow downstream to other reservoirs, it is not possible to evaluate the true magnitude and consequences of these processes by simply studying a reservoir in isolation. Rather, the system of reservoirs, interconnecting streams, and the conditions under which releases are made need to be considered holistically. This is particularly important for those pollutants that are so ubiquitous in the environment that source control is not possible (at least in the short- to medium-term). One example of such a pollutant is mercury. If conditions in reservoirs can be controlled so as to avoid the formation of anoxia, the production of toxic methyl mercury can be reduced by one to two orders of magnitude.

### **A Multi-Phased Approach**

Such a modeling effort, given the hundreds of reservoirs that comprise the system, is logistically complex and the amount of science and engineering effort that will be required is difficult to estimate. It is therefore proposed that a phased approach be used and that in Phase I a subset of the reservoirs be modeled.

### **Climate Change Effects on Reservoirs**

A further advantage of using a multi-phased approach is that a better understanding of the sensitivity to the system to changes in reservoir operations and issues such as climate change can be studied at the outset. Because of the need for quantitative data to help understand the potential impacts, and for decisions in resource management that need to be made by basin area tribes, analysis of climate change will be specifically outlined in the report of this pilot project (tasks 5 and 6). E.g., reservoir modeling will be developed on a 15 minute scale to examine the formation of thermal stratification that is conducive to mercury methylation. This will be done for a range of climate conditions to explore sensitivities throughout the system. Additionally, we will plan to include a section of the final report that will be devoted to describing variations in different management strategies to see how stratification is influenced.

### **Multi-year Goals**

In subsequent phases the other elements of the project will be developed. These elements include the expansion of the modeling to include progressively larger sections of the basin, working collaboratively with CRITFC and tribal staff to both gather available data needed for model boundary conditions and validation, training CRITFC and tribal staff in the use of the model, and assisting in the development of an educational component of the model results in collaboration with partners including the Columbia River Gorge Discovery Center.

### **Tasks to be Undertaken by S. G. Schladow, technical advisor, to Complete Study**

1. In consultation with Yakama Nation Fisheries and YKFP determine best location of a "testbed" for calibration and validation of ILLS Study modeling activities.



2. Obtain equipment: Thermistor Chain and dissolved oxygen sensor.
3. Monitor temperature and oxygen in the chosen reservoir "testbed."
4. Install weather station monitoring equipment.
5. Retrieve Data and provide analysis.
6. Prepare Final Report.
7. Meet with YKFP and EMP at outset of project and at project end.
8. Prepare oral presentation (powerpoint) of both projects—the ILLS Study and the Calibration Study to multi-tribe consortium meeting.

## **Project Two**

### **Collaborative Multi-Tribe Development of Museum Exhibit**

#### Project Justification, Explanation and Scope of Work

Submitted as proposal for funding to Indian General Assistance Program (IGAP)  
FY 2012

**The Stewardship Room at the Columbia Gorge Discovery Center and Museum**  
**This room will be used for the Tribal-led museum display about toxin reduction and climate change adaptation strategies display.**





### **Tasks to be performed and/or overseen by Yakama Nation EMP Staff:**

- Consult with YN Museum staff and EMP program leadership to determine potential resources from YN. Develop plan for contacting tribal museums of other tribes and the equivalent of EMP staff, education specialists, etc...
- Convene people and resources from interested tribes.
- Meeting: Brainstorm possibilities, determine direction from among tribal participants and museum staff, with technical education/outreach directors from other stakeholders.
- Consult artistic developer (s) who specialize in museum exhibits. To determine possibilities and costs.
- Research technical possibilities based on model of Tahoe Environmental Research Center's multi-media 3-D display.
- Based on assessments and consultations determine scope and feasibility parameters.  
Include:
  - Geographic Scope for resources and presentation
  - Technical possibilities and costs—e.g. movie production or slides
  - Lessons, or messages/goals of the exhibit.
  - Type of message: canned message or guided tours
- Create short pilot presentation that can be leveraged for further development and future funding.

Additionally, in order to document the degree of success of the project, the DNR staff and consultants will:

- Develop a one page document that summarizes the accomplishments of the one year GAP Special Project. The one page summary document will be submitted to the EPA Project Officer with the 4th quarterly report in 2012. Before and after pictures, as appropriate will be Included. Additional data and findings re: the following topics will be provided in greater detail in an appendix , *(For example only , the actual data may vary from this format)*
- such as what materials were used or collected, how much was backhauled (by weight, volume or specific category),
- or how many communities were included in the outreach effort;
- and finally, how this Special Project affected behavior or led to a positive change in environment.

(Deliverable: Summary page with pictures and data as appropriate.)

## Citations

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<sup>i</sup> *Toxics Reduction Action Plan*, p.5.

<sup>ii</sup> See listing of tribes in Columbia River Toxics Working Group Steering Committee, p. 3, *Columbia River Basin Toxics Reduction Action Plan*, September 2010, U.S. Environmental Protection Agency, Region 10 & The Columbia River Toxics Reduction Working Group.

<sup>iii</sup> [http://www.epa.gov/region10/pdf/columbia/toxics-action-plan\\_sept2010.pdf](http://www.epa.gov/region10/pdf/columbia/toxics-action-plan_sept2010.pdf), accessed 19 Dec., 2010.

<sup>iv</sup> *Ibid.*, p 7.

<sup>v</sup> *Ibid.*, p 7.

<sup>vi</sup> <http://yosemite.epa.gov/r10/ecocomm.nsf/Columbia/SoRR/>, accessed 12 Dec., 2010.

<sup>vii</sup> Jaffe, D.A. and Strode S. Fate and Transport of Atmospheric Mercury from Asia, *Environ. Chem.* 2008, 5, 121, doi:10.1071/EN08010.

<sup>viii</sup> <http://yosemite.epa.gov/r10/oea.nsf/0/C3A9164ED269353788256C09005D36B7>, *Columbia River Basin Fish Contaminant Survey*, accessed 19 Dec. 2010.

<sup>ix</sup> *Ibid.*

<sup>x</sup> *Ibid*

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<sup>xi</sup> Oreskes, N. 2004. Behind the Ivory Tower: The Scientific Consensus on Climate Change. 2004. *Science* Vol 306, no 5702:1686.

**Table 1: General Assistance Program  
Standardized Work Plan Format**

**Tribe:** Yakama Nation

**Region:** 10

**Work Plan Period** Begin 10/1/2011 End: 9/30/2012

**Work Plan Component:** 1 - Provide Assessment Data to Calibrate Modeling Efforts

**Primary Capacity Area Developed (choose one):** Technical/Non-Administrative

**Long-Term Outcome(s) (Changes in the Environment, Public Health, Behavior or Knowledge):**

- Support the calibration and validation of water quality modeling efforts in the Columbia River Basin
- 

**Intermediate Outcome(s) (this work plan period):**

- Provide data on local water quality conditions on a selected site for use in calibrating water quality models
- 
- 

**ESTIMATED COMPONENT COST:**  
\$45,000.00

**ESTIMATED COMPONENT WORK YEARS:** 0.25

| COMMITMENTS |                                                                                  | CAPACITY<br>AREA<br>DEVELOPED | ESTIMATED<br>COMMITMENT<br>COST<br>(optional) | END<br>DATE | OUTPUTS AND DELIVERABLES           |
|-------------|----------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------|-------------|------------------------------------|
| X.1         | Obtain monitoring equipment and monitor temperature and oxygen in chosen testbed | Technical/Non-Ad              | \$25,000.00                                   | 6/15/12     | Data collection                    |
| X.2         | Retrieve data and provide analysis                                               | Technical/Non-Ad              | \$10,000.00                                   | 8/15/12     | Database of monitored parameters   |
| X.3         | Prepare final report and oral report on data collection and analysis             | Technical/Non-Ad              | 10,000.00                                     | 9/25/12     | Final Report and Oral Presentation |
| X.4         |                                                                                  | Legal                         |                                               |             |                                    |
| X.5         |                                                                                  | Legal                         |                                               |             |                                    |
| X.6         |                                                                                  | Legal                         |                                               |             |                                    |

EPA Use Only

**2006-2011 EPA Strategic Plan**

**Goal :**

**Objective :**

**Sub-objective X.X.X:**

**Table 1: General Assistance Program  
Standardized Work Plan Format**

**Tribe:** Yakama Nation

**Region:**10\_\_

**Work Plan Period** Begin10/1/2011End:9/30/2012

**Work Plan Component:** 2 - Tribally Developed Museum Exhibit

**Primary Capacity Area Developed (choose one):** Communications

**Long-Term Outcome(s) (Changes in the Environment, Public Health, Behavior or Knowledge):**

- Will increase knowledge and build public awareness for the need to reduce toxins and develop climate change strategies
- Promote inter-tribal efforts to improve the quality of first foods in the Columbia River Basin

**Intermediate Outcome(s) (this work plan period):**

- Build a tribal-focused pilot presentation of a museum exhibit for display at the Columbia Gorge Discovery Center and Museum
- 
- 

**ESTIMATED COMPONENT COST:**  
\$30,000.00

**ESTIMATED COMPONENT WORK YEARS:** 0.15

| COMMITMENTS |                                                                                                     | CAPACITY<br>AREA<br>DEVELOPED | ESTIMATED<br>COMMITMENT<br>COST<br>(optional) | END<br>DATE | OUTPUTS AND DELIVERABLES    |
|-------------|-----------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------|-------------|-----------------------------|
| X.1         | Consult with museum staff, interested tribes, education/outreach directors to develop exhibit scope | Communications                | \$5,000.00                                    | 3/31/12     | Conceptual Model of Exhibit |
| X.2         | Create short pilot presentation that can be leveraged for further development and funding           | Communications                | 20,000                                        | 9/30/12     | Pilot Presentation          |
| X.3         | Prepare and submit a brief success story on the project                                             | Communications                | 5,000.00                                      | 9/30/12     | Report                      |
| X.4         |                                                                                                     | Legal                         |                                               |             |                             |
| X.5         |                                                                                                     | Legal                         |                                               |             |                             |
| X.6         |                                                                                                     | Legal                         |                                               |             |                             |

EPA Use Only

**2006-2011 EPA Strategic Plan**

**Goal :**

**Objective :**

**Sub-objective X.X.X:**

| <u>Line Item</u>                   | <u>Details</u>                                                                  | <u>Sub Total<br/>FY11</u> | <u>Total</u> |
|------------------------------------|---------------------------------------------------------------------------------|---------------------------|--------------|
| <b>PERSONNEL</b>                   | Salary (refer to detailed budget , page 1) )                                    | \$22,600.00               | \$ 22,600.00 |
|                                    | Fringe @ 26.02%                                                                 | \$ 5,880.52               | \$ 5,880.52  |
|                                    | <b>TOTAL Personnel</b>                                                          | \$ 28,480.52              | \$ 28,480.52 |
| <b>TRAVEL/<br/>TRAINING</b>        | TRAVEL (refer to Detailed budget Page 2)                                        | \$5,190.00                | \$ 5,190.00  |
| <b>SUPPLIES</b>                    | supplies (refer to detailed budget,page 4)                                      | \$19,106.00               | \$ 19,106.00 |
| <b>EQUIPMENT</b>                   |                                                                                 | \$ -                      | \$ -         |
| <b>CONTRACTUAL</b>                 |                                                                                 | \$ 12,375.00              | \$ 12,375.00 |
|                                    |                                                                                 |                           |              |
| <b>OTHER</b>                       | E.g vehicle, fuel, oil, maintenance office rent (unless covered under indirect) | \$ -                      | \$ -         |
|                                    |                                                                                 |                           |              |
|                                    |                                                                                 |                           |              |
| Total Other                        |                                                                                 |                           |              |
|                                    |                                                                                 |                           |              |
|                                    |                                                                                 |                           |              |
| <b>TOTAL DIRECT</b>                |                                                                                 | \$ 65,151.52              | \$ 65,151.52 |
| <b>INDIRECT</b>                    | total direct At 18.66% less contractual and consulting fees.                    | \$9,848.10                | \$9,848.10   |
| <b>TOTAL DIRECT +<br/>INDIRECT</b> | Direct + Indirect cost- contractual and consultant fees                         | <b>\$ 74,999.62</b>       | \$ 74,999.62 |
| <b>Tribal match</b>                | not applicable                                                                  |                           | \$ -         |
| Total Project Cost                 | direct plus indirect with no tribal match.                                      |                           |              |

**Tasks to be Undertaken by S. G. Schladow, technical advisor, in collaboration with the Yakama Nation to Complete Study**

1. In consultation with Yakama Nation Fisheries and YKFP determine best location of a “testbed” for calibration and validation of ILLS Study modeling activities. (Schladow)
2. Obtain Water Quality Monitoring Supplies: (Thermistor Chain, dissolved oxygen sensor, and ancillary supplies, including software) . (Yakama Nation)
3. Monitor temperature and oxygen in the chosen reservoir “testbed.” (Yakama Nation)
4. Install weather station monitoring equipment. (Yakama Nation , Schladow)
5. Retrieve Data and provide analysis. (Yakama Nation , Schladow)
6. Prepare Final Report. (Yakama Nation , Schladow)
7. Meet with YKFP and EMP at outset of project and at project end. (Schladow)
8. Prepare oral and visual presentation of both projects—the ILLS Study (Schladow) and the Calibration Study to multi-tribe consortium meeting. . (Yakama Nation , Schladow)